

Public health laboratories play an invaluable and indispensable role in protecting America's health. They perform the vast majority of public health reference tests, monitor community health conditions, help shape population-based interventions, and advise healthcare providers on appropriate patient care. They also play critical roles in the detection of disease threats and specimen testing during public health emergencies.

The Oklahoma State Department of Health (OSDH) Public Health Laboratory (PHL) was constructed in the **early 1970's** to deal with public health issues of that era. Due to the physical limitations, out-dated mechanical systems, and deteriorating infrastructure of the current facility, there is an urgent need to update the facility to one that is conducive to modern operations and that will serve the state of Oklahoma for decades to come. To underscore this critical need for an updated facility, in 2012, an inspection team from the College of American Pathologists (CAP), the agency that accredits the laboratory to perform testing on patient specimens, wrote in its summary report regarding the OSDH PHL:

"The facilities for this laboratory are antiquated and poorly designed. The facilities appear to be at the end of their time and require immediate plans for addressing."

The OSDH PHL receives over 190,000 specimens each year and performs in excess of 670,000 tests on those specimens. The requested \$49,178,000 in bonding authority would allow the PHL to continue to serve Oklahoma in many ways.



NEWBORN SCREENING – Every year, the PHL screens approximately 54,000 infants born in Oklahoma for 54 life-threatening biochemical and genetic disorders. Many of these disorders require prompt intervention (usually within 48 hours) after the birth to prevent lifelong disability or death of the child. In 2013, the Newborn Screening Program followed 3,412 newborns with abnormal screens and successfully secured 95 children with proper follow-up medical care.

BIOTERRORISM – The threat of a mass terrorism attack with biological or chemical agents has become a prominent public health concern nationwide and has changed the landscape of testing at PHLs. Testing for potential agents of bioterrorism, such as smallpox, anthrax, plague, and ricin, in suspect "white powders" and in specimens from potentially exposed individuals has become extremely important in the state's ability to respond in a timely manner. The OSDH PHL is the state's **only** Biological Safety Level 3 facility capable of analyzing and reporting on microbial and toxin threat agents. It also is responsible for statewide training of all first responders in the handling of chemical and biological threat agents.



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The expanding scope of responsibilities imposed nationally on public health laboratories, combined with the need to ever-broaden the spectrum of testing and adopt newer and improved testing technologies, have become a challenge for state public health facilities nationwide. The CDC and the Association of Public Health Laboratories (APHL) are concerned that many public health laboratories are in danger of losing the capacity to perform critically needed tests and services. This has the potential to impair the ability of public health authorities to respond effectively to conventional health risks as well as to public health emergencies, such as infectious and foodborne disease outbreaks and pandemics. Many states, such as Connecticut, Louisiana, Maryland, Mississippi, New Jersey, New Mexico, North Carolina, Oregon, Utah, Vermont, and Wyoming, have responded accordingly by recently building new facilities to house their public health laboratories.

INFECTIOUS DISEASE TESTING, SURVEILLANCE, AND CONTROL – *Rapid identification of newly emerging and re-emerging infectious diseases is the first line of defense to protect the health and safety of the public.*

The OSDH PHL plays important roles in:

- *Assisting public and private healthcare providers in recognizing the source and preventing the spread of communicable and environmental (foodborne) diseases.*
- *Population surveillance through screening for conditions of the public health interest (e.g., influenza, HIV, hepatitis, syphilis, etc.).*
- *Specialized testing for low incidence, high-risk diseases (e.g., tuberculosis, West Nile virus).*
- *Diagnostic testing for Oklahoma healthcare facilities that lack the ability to identify rare and unusual pathogens (e.g., malaria, botulinum, whooping cough).*
- *Coordination of specialized testing services (e.g., bird flu, drug-resistant microorganisms, Ebola confirmation) with the Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and other entities.*
- *Diagnostic testing of wild animals, livestock and pets for rabies exposure (only testing facility in Oklahoma).*

Bonding authority of \$49,178,000 will fund construction of a modern-designed laboratory and allow the PHL to be more efficient and effective at testing by providing the ability to:

- Incorporate efficiencies in workflow, specimen handling, and reporting.
- Expand existing testing and adopt innovative technologies that are currently unattainable due to space limitations.
- Stay abreast of current technology and increase use of instrumentation and robotics.
- Reallocate laboratory space to absorb surges in specific test volumes that occur at times of disease threats and public health emergencies.
- Reconfigure equipment, furniture and laboratory space to align with future testing technologies.
- Relocate the OSDH Pharmacy Services to the same location as the PHL, saving rent expense and allowing for better coordination of laboratory and pharmacy activities.

